Document Information

Reference	USR-190016
Title	dbMultiCardLock (S) Installtion/User Guide
Synopsis	dbMultiCardLock (S) Installation/User Guide
Author	Chris Marsden
Creation Date	2019-Mar-22

Revisions

Rev	Date	Who	Notes
001	2019-Mar-22	Chris Marsden	Initial document
002	2019-Mar-26	David Montgomery	Add details re: lockdown LED sequence
003	2019-Oct-02	David Montgomery	Fix Typo's

dbMultiCardLock (S)

Ergonomic Design

Modularized Reader Head

Tri color (Red / Amber / Green) Reader LED

Tri color (Red / Magenta / Blue) Status LED

Optical Handle Position Sensor

Secure key-cylinder. Compatible with ultra-secure cylinders

Contents

dbMultiCardLock (S) Installation

Determining which Lock Pawl to use

As all cabinets vary, we offer a wide range to pawls to suit the particular dimensions of your cabinet.

There are 2 simple measurements that need to be taken to determine which pawl you will need.

Please obtain the measurements as show in Figure 1 and Figure 2 below and contact our support team at support@digitus-biometrics.com
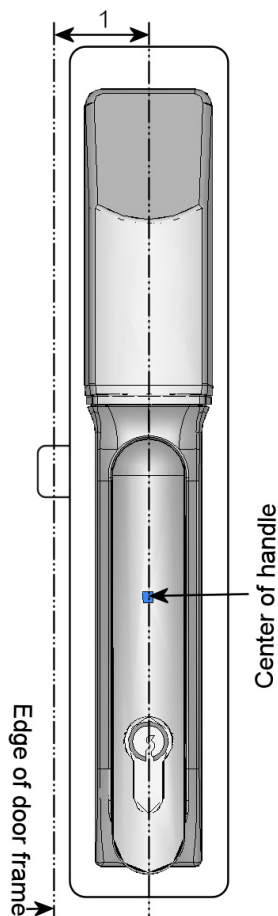
Figure 1 – Measurement 1
Edge of Door Frame to Center of Handle
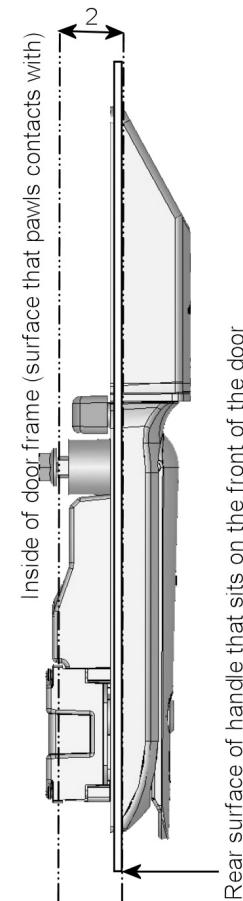
Figure 2 – Measurement 2
Rear surface of handle to Inside of Door Frame

In most situations the pawl from the existing mechanical handle can be re-used with the new lock.

Installing the Rotation Limiter
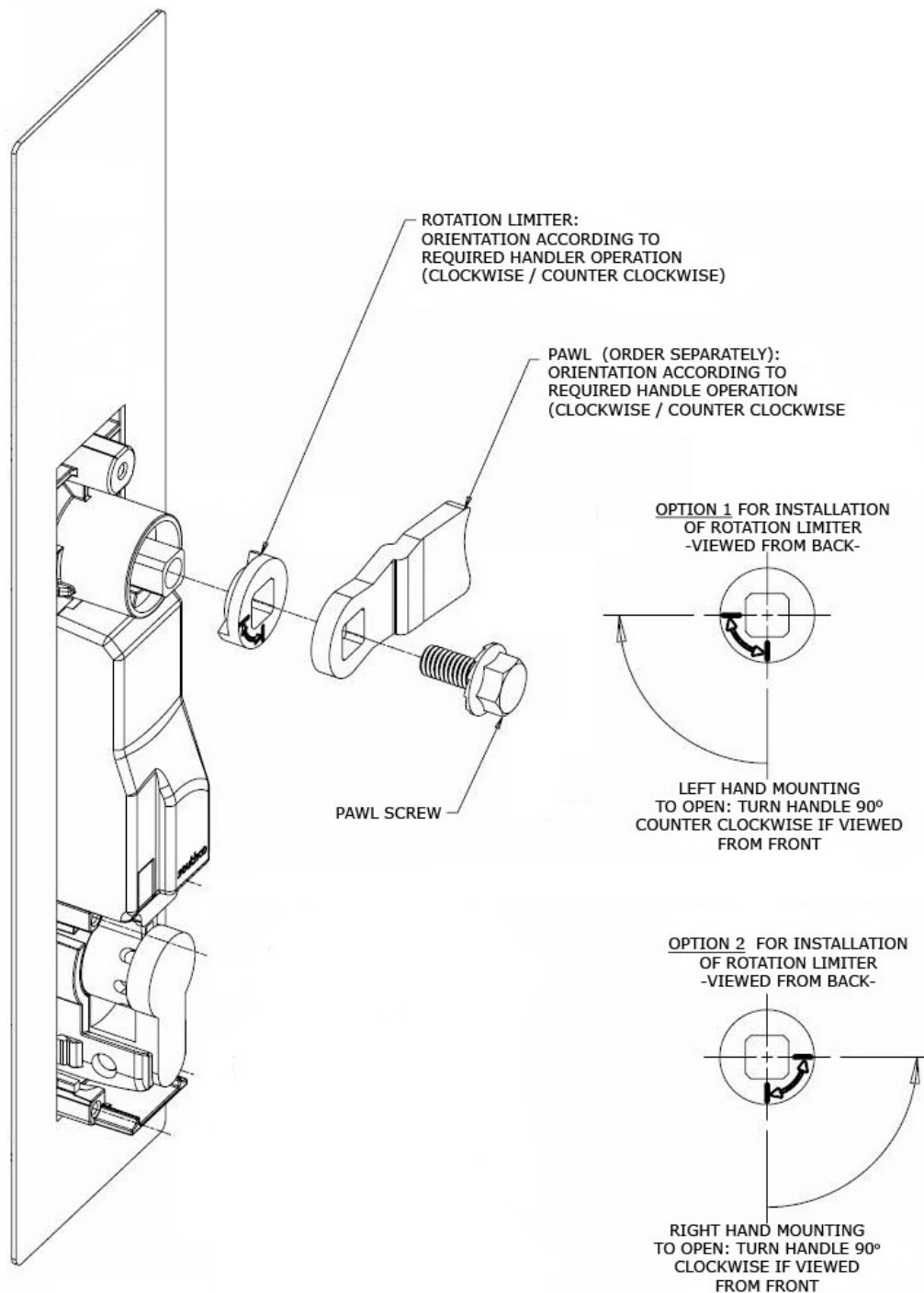
Figure 2 – Rotation Limiter

Positioning the Cable Management Tie-Down Pads

The second step is to mount the cable management tie-down pads to the cabinet and the cabinet door as illustrated below.

The tie-down pads are used to secure the supplied cable that connects the lock directly to the Remote Node / db Sentry or Access Control panel.

Ensure that the door surface is clean and free from any debris. Using rubbing alcohol to clean the surface is highly recommended. Allow sufficient time for the cleaned areas to dry before mounting the tie-down pads.
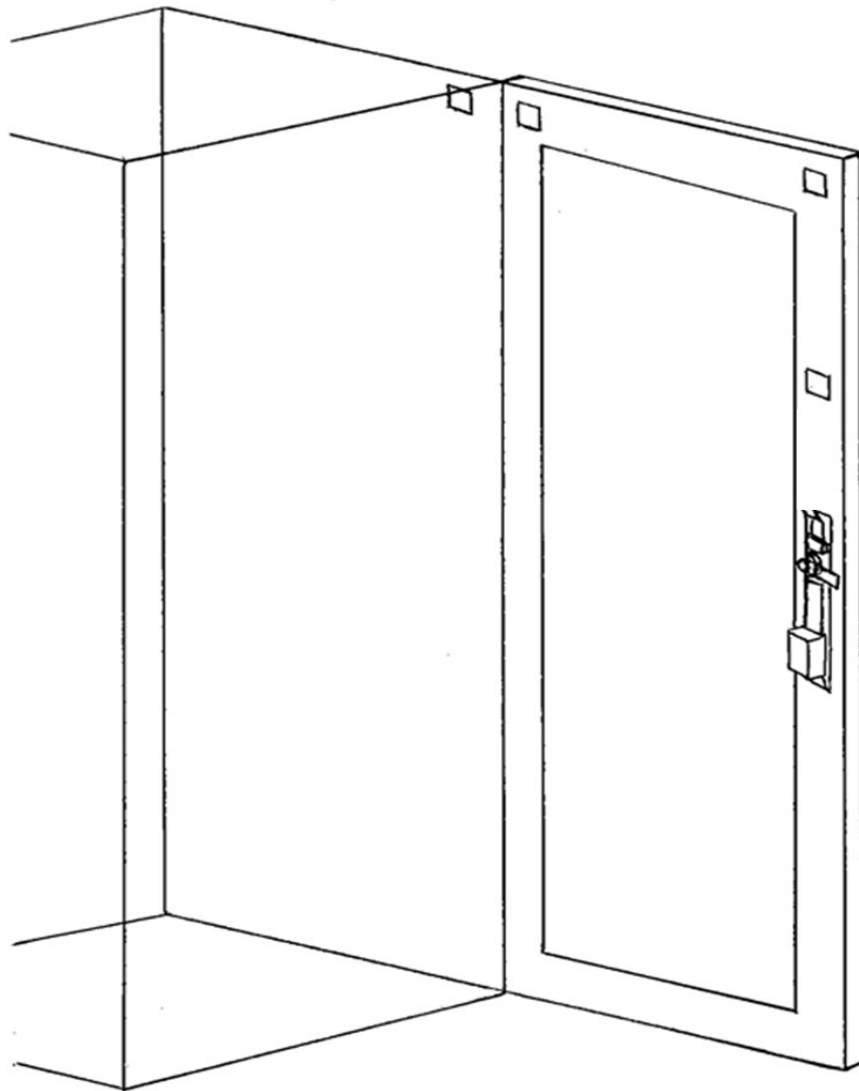
Figure 3 – Positioning the tie-down pads

Remove the protective cover from each tie-down pad and situate as shown in Figure 3.

Routing the Lock Cable

Route the cable between the lock and the db Remote Node / db Sentry Controller or ACM Panel.

Route the lock cable to the door hinge as shown in Figure 5 and secure the cable to the tie-down pads using the supplied cable-ties. Connect the supplied device cable to the RJ-45 coupler and route it to:

- the Remote Node or Sentry (if you are using a Digitus controller)

- 3rd Party Access Control Panel (if you are connecting to a third-party access control panel, connect a CAT5 cable to the RJ-45 coupler and run back to panel. Details on how to terminate the wire at the Access Control Panel are shown on page 9 of this manual.
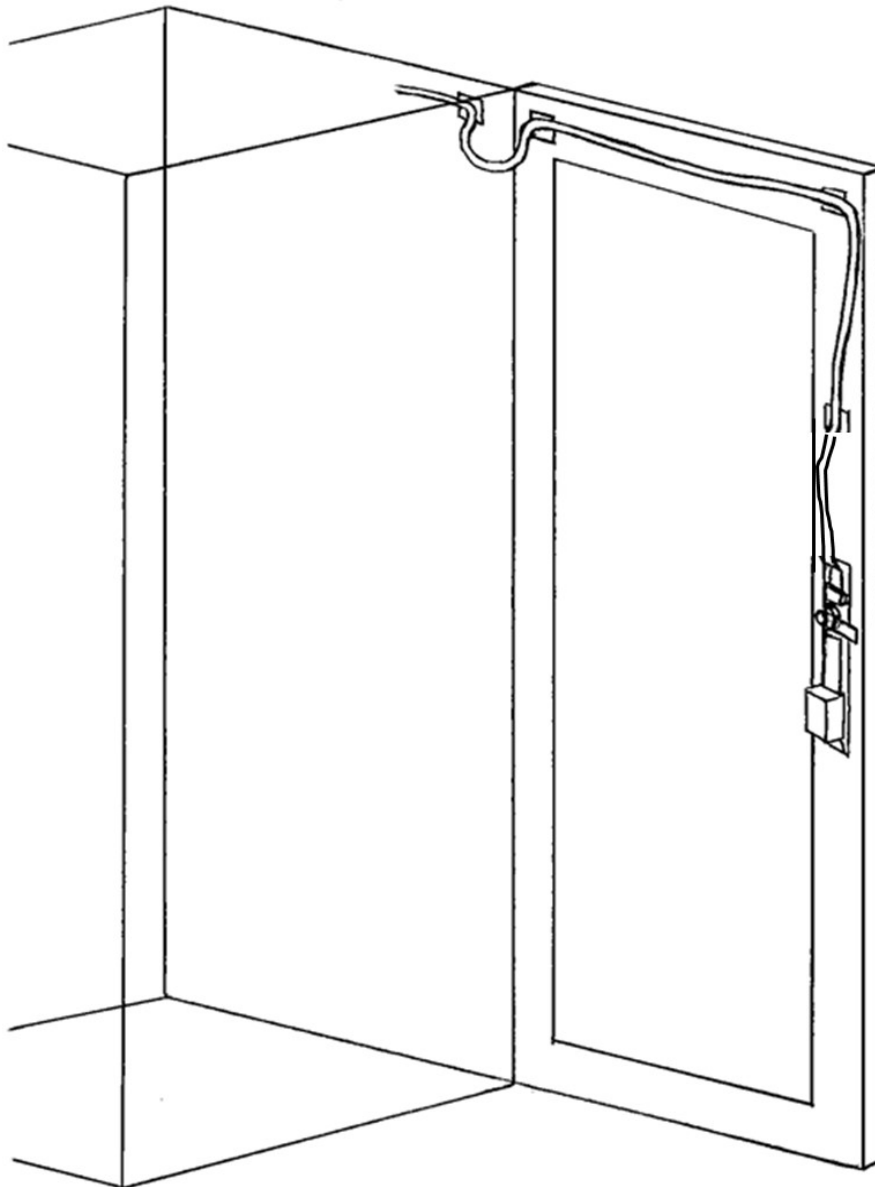
Figure 4 – Routing the cable

Connecting to dbRemote Node / dbSentry

Connect the cable to the dbRemote Node / dbSentry Controller.

Handles / locks are connected to the dbRemote Node or dbSentry socket circled in the diagram below.

Each dbRemote Node / dbSentry Controller has two device inputs, Dev 1 and Dev 2.
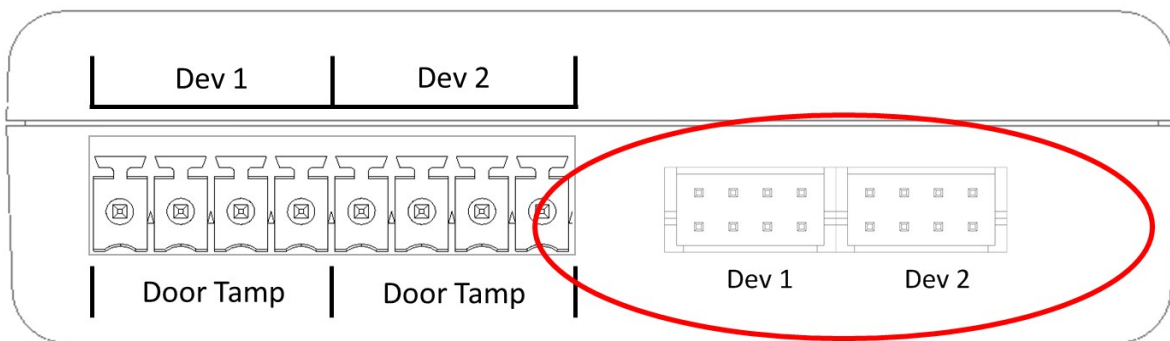
Figure 5 - Side View of dbRemote Node

Figure 6 - Side View of dbSentry

For clarity and consistency, it is recommended that for a cabinet with 2 doors, the front door is connected to Dev 1 and the back door is connected to Dev 2.

Connecting to 3rd Party Access Panels

Connect the lock to 3rd-party Access Panel
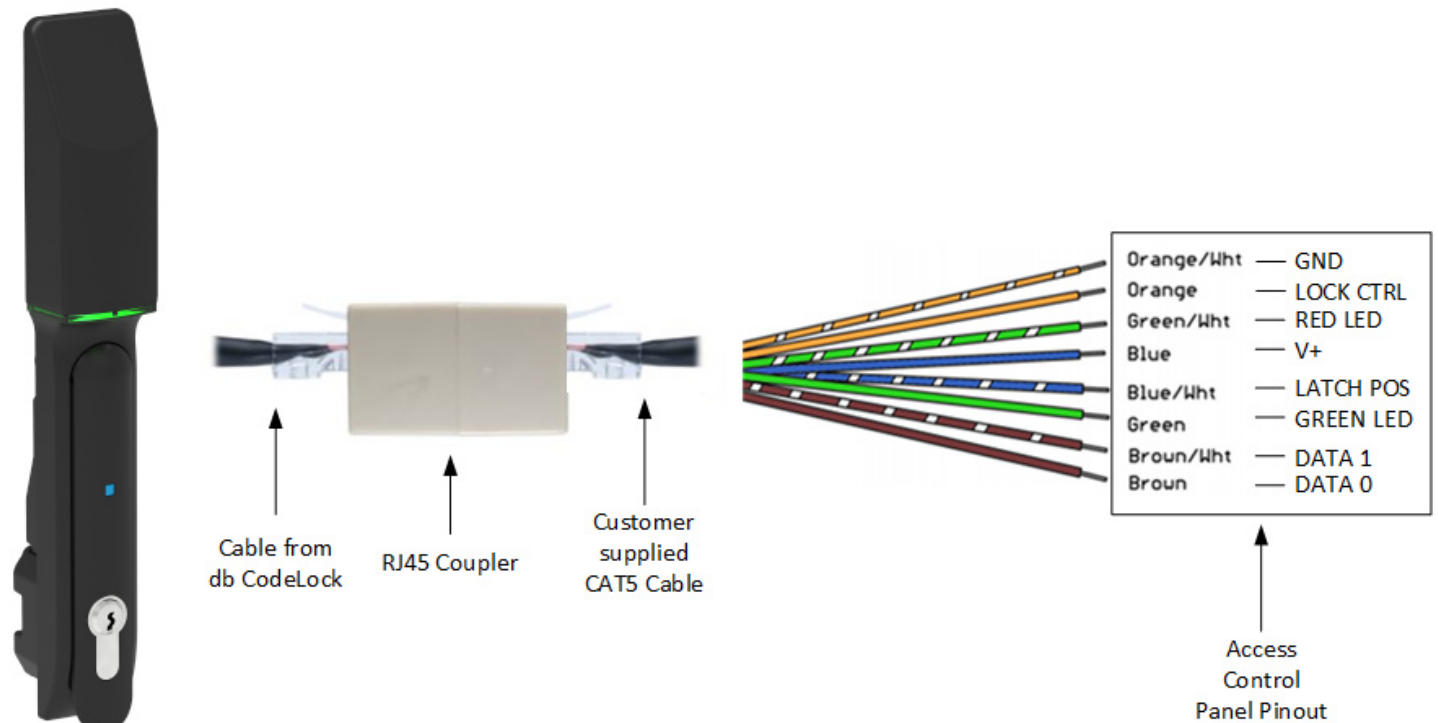
Figure 7

Color	Control	Notes
Orange / White	GND	Ground
Orange	LOCK CTRL	Requires a 12V control line to unlock the handle
Green / White	NC	
Blue	V+	Requires a 12VDC Supply
Blue / White	LATCH POS	Used to indicate if the lock is open or closed
Green	NC	
Brown / White	DATA1	Wiegand Data 1
Brown	DATA0	Wiegand Data 0

Connecting Latch Position to 3rd Party Panel

The dbMultiCardLock (S) provides the capability to monitor whether the handle is in the open or closed position. This is a single signal from the handle, shown as "LATCH POS" in the table above.

If the 3rd-party Access Panel requires a 2-wire input to monitor the handle position, an external 12v low current relay is required. The diagram below shows how to connect the "LATCH POS" signal to a 3rd-party Access Panel with a relay.

Approved relays can be purchased by contacting your Digitus vendor or by emailing sales@digitus-biometrics.com
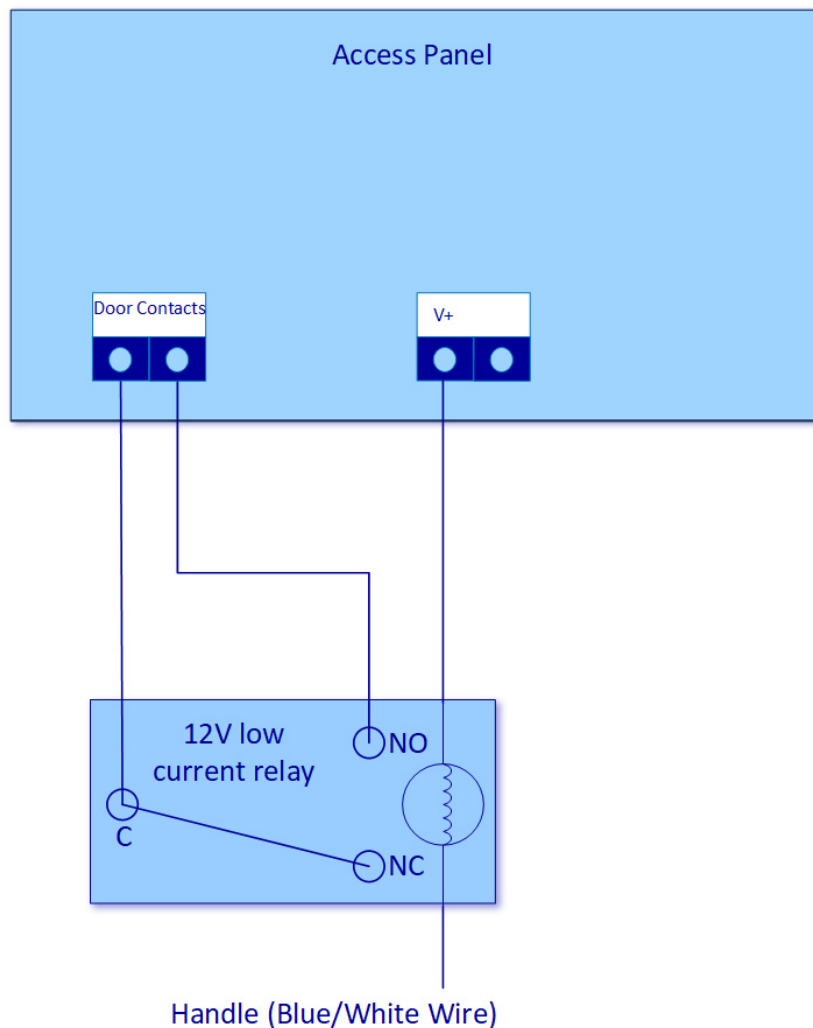

Figure 8 – Connecting Latch Position to a 3rd Party Panel

Power Up

- Upon power-up, the dbMultiCardLock (S) performs a **RED** / **AMBER** / **GREEN** traffic light sequence on the Reader LED. The Reader LED will remain solid **GREEN** for up to 10 seconds while the handle tries to establish communication with a dbSentry or dbRemote Node (which typically takes less than 2 seconds). If the Reader LED remains **GREEN** for the full 10 seconds, the dbMultiCardLock (S) has not been able to establish communication with a dbSentry or dbRemote Node and therefore assumes that it is connected to a 3rd party Access Panel.
- After the power-up sequence, a flashing **RED** LED on the handle signifies that communication with the keypad has been lost. The handle will remain inoperative until the issue is resolved.

Updating Firmware

Connected to a dbSentry or dbRemote Node

- Initiate the firmware upload via DAS-SQL
- The Reader LED will flash **AMBER** while the handle firmware is being received.
- The Reader LED will stop flashing and turn solid **AMBER** to indicate that programming is taking place (which typically takes around 20 seconds). If power is interrupted in this state, the lock could be irreparably damaged.
- Once the programming is complete, the Reader LED will turn **GREEN** before rebooting. Following which the dbMultiCardLock (S) performs a **RED** / **AMBER** / **GREEN** traffic light sequence on the Reader LED indicating the handle is booting up.
- If the Reader LED will turn **RED** for 3 seconds or GOES OFF COMPLETELY, there was a problem with the firmware being received.

Connected to a 3rd-party Access Panel

- If a Digitus Support Technician advises that your handle requires a firmware update, Digitus will ship a loan programmer which, once connected directly to your handle, will update the firmware.

Configuration Cards

Handle Configuration Card

There may be instances where the operational aspects of the handle need to be changed. This is done using a configuration card.

A member of the Digitus Support Team will advise you if a configuration card is required.

- The configuration card is presented to the handle.
- The Reader LED will flash **GREEN** 3 times to indicate that the configuration data was saved to non-volatile memory.

RFID Configuration Card

There may be instances where changes need to be made to the configuration of the RFID reader. This is done using a configuration card.

A member of the Digitus Support Team will advise you is a configuration card is required.

- The dbMultiCardLock (S) needs to be powered off.
- At the same time as the dbMultiCardLock (S) is powered up, present the configuration card to the handle – holding to card to the handle for 10 seconds. There are no visual or audible confirmations that programming has taken place.

Reader LED

Connected to dbSentry, dbRemote Node or Access Control Panel

- If a card was read successfully, the user's information is sent to the controller and the handle LED will turn solid **AMBER** to show that user verification is in progress.
    - o If access is granted the handle LED will turn solid **GREEN** and the handle will unlock for the programmed open delay.
    - o If access is denied the handle LED will turn solid **RED** for 3 seconds.
- If an unknown card is presented or authentication to the card failed the handle LED will turn solid **RED** for 3 seconds and access is denied.
- If the handle is in "Lockdown" mode, the handle LED will alternate between **RED** and **AMBER** until "Lockdown" is cancelled.

Status LED

The dbMultiCardLock (S) is equipped with a tri-color **RED** / **MAGENTA** / **BLUE** status LED located on the front of the handle.

The LED states are as follows:

- When the dbMultiCardLock (S) is locked and secure the Status LED will turn solid **BLUE**.

- When the dbMultiCardLock (S) is unlocked, but the handle is still closed the Status LED will flash **BLUE** / **MAGENTA**.

- When the dbMultiCardLock (S)'s handle is in the open state the Status LED will turn solid **BLUE**.

- When the dbMultiCardLock (S) is locked but the handle is still open and therefore unsecure the Status LED will flash **BLUE** / **RED**.

- When the dbMultiCardLock (S) is locked, the handle is closed, but not fully engaged and therefore still unsecure the Status LED will flash **BLUE** / **RED** / **RED**.